

# Battery Energy Storage System Application Form for Installations in 1 & 2 Family Dwellings and Townhouses Only Not Exceeding an Aggregate Rating of 80 KWH

## SUBMITTAL INSTRUCTIONS

This application and the following attachments will constitute the Battery Energy Storage System Application Package.

1. This application form, with all fields completed and bearing relevant signatures.
2. 3 Copies of stamped and signed drawings from a NYS Licensed Design Professional.
3. 2 Sets of the Energy Storage System manufacturer's cut sheets, UL Listings and installation instructions for all system components including inverters.
4. Copies of Installers General Liability Insurance, Workers Compensation (not on Acord form), Hold Harmless Form and Home Improvement License.
5. A check made payable to the City of Yonkers for the appropriate fees due for this application as calculated in the fee section on page 5.
6. City of Yonkers Electrical Permit Application for the system wiring with its own fees payment check.
7. City of Yonkers Building Permit Application for ventilation work if required with its own fees payment check.

Completed application package including any associated permit applications shall be mailed to:  
City of Yonkers  
Dept. of Housing and Buildings  
87 Nepperhan Ave.  
5<sup>th</sup> Floor  
Yonkers, NY 10701

## APPLICATION REVIEW TIMELINE

Application determinations will be issued within 60 calendar days upon receipt of complete and accurate applications. The municipality will provide feedback within 30 calendar days of receiving incomplete or inaccurate applications.

## FOR FURTHER INFORMATION

Questions about this permitting process may be directed to Yonkers Housing and Building Department 914-377-6500.

## City of Yonkers Comments and Restrictions

Energy storage systems installed in buildings or structures that are subject to the provisions of this code (2020 Residential Code of New York State), shall be installed and maintained in accordance with Sections R327.2 through R327.11.

The temporary use of an owner's or occupant's electric powered vehicle as an *energy storage system* shall be in accordance with Section R327.12.

Energy storage system installations exceeding the permitted aggregate ratings in Section R327.5 shall be installed in accordance with Section 1206.2 through 1206.17.7.7 of the Fire Code of New York State under a Battery Energy Storage System Application for All Commercial Installations Not Exceeding an Aggregate Rating of 600KWH and Residential Installations over 80 KWH with an Aggregate Rating up to 600 KWH.

Energy storage systems that have the potential to release toxic or highly toxic gas during charging, discharging and normal use conditions **SHALL NOT** be installed within one- and two-family dwellings and townhouses.

## PROPERTY OWNER

Property Owner's First Name	Last Name	Title		
Property Address		Section	Block	Lot
Owner's Mailing Address (if different)				
City	State	Zip		

## INSTALLATION COST

Cost of Installation: \_\_\_\_\_

## BATTERY ENERGY STORAGE SYSTEM INSTALLATION CONTRACTOR

Contractor Business Name			
Contractor Business Address	City	State	Zip
Contractor Contact Name		Phone Number	
Contractor License Number(s)		Contractor Email	
Electrician Business Name			
Electrician Business Address	City	State	Zip
Electrician Contact Name		Phone Number	
Electrician License Number(s)		Electrician Email	

Please sign below to affirm that all answers are correct and that you have met all the conditions and requirements to participate in this unified process.

Property Owner's Signature	Date
Battery Energy Storage System Company Representative Signature	Date

## EXISTING USE

☐ Residential

## PV System Details

New PV System \_\_\_\_\_ Addition to Existing PV System \_\_\_\_\_ Existing PV System \_\_\_\_\_

## PROVIDE THE TOTAL SYSTEM CAPACITY RATING

Total Energy Storage System Rating: \_\_\_\_\_ kWh Power Rating \_\_\_\_\_ kW (Select One) ☐ AC or ☐ DC

Does the battery system contain an inverter in addition to the Solar PV Inverter? Yes ☐ No ☐

Total Inverter Capacity \_\_\_\_\_ kw (Total PV and battery inverter capacities)

## SELECT SYSTEM CONFIGURATION

☐ AC Coupled ☐ DC Coupled ☐ Standalone

Will the batteries be configured to export to the electric grid? Yes ☐ No ☐

## BATTERY SYSTEM DETAILS

☐ Lithium-ion, all types ☐ Lead-acid, all types ☐ Nickel-cadmium (Ni-Cd) ☐ Flow batteries ☐ Other: \_\_\_\_\_

☐ New Battery System ☐ Change of Size of Existing Battery System

☐ Individual Unit Battery Capacity (20 KWH Max.) \_\_\_\_\_ KWH

## SELECT INSTALLATION TYPE

☐ Indoor ☐ Outdoor ☐ Attached Garage ☐ Detached/Open Garage ☐ Rooftop ☐ Dedicated Use Building

## PERMITS AND APPROVALS REQUIRED

The following permits are the minimum requirements for battery energy storage systems installed with an aggregate energy capacity less than or equal to 80kWh installed on 1 & 2 Family Dwellings and Townhouses.

1. Battery Energy Storage System Permit (Issued as a Yonkers Building Permit)
2. Electrical Permit filed by a Westchester County Licensed electrical contractor.
3. City of Yonkers Mechanical Permit for work involving any ventilation if applicable. (Filed separately on a Yonkers Building Permit application)

## SUBMITTAL REQUIREMENTS

### General Requirements:

- Minimum plan size is 24" x 36" with a minimum font of 10.
  - Include 3 full sets of plans and 2 sets of supporting documents.
  - All pages to be stamped by a NYS Licensed Design Professional.
  - Dimensioned partial floor plans drawn to scale by a NYS Licensed Design Professional showing all the following:
- Include the applicable codes on the cover sheet for the project.
- Include the complete scope of work on the cover sheet for the project.
- All battery energy storage systems, all dedicated use buildings, and all other buildings or structures that (1) contain or are otherwise associated with a battery energy storage system and (2) subject to the NYS Uniform Fire Prevention and Building Code (Uniform Code) and/or the NYS Energy Conservation Construction Code(Energy Code) shall be designed, erected, and installed in accordance with all applicable provisions of the Uniform Code, all applicable provisions of the Energy Code, and all applicable provisions of the codes, regulations, and industry standards as referenced in the Uniform Code, the Energy Code, and the City of Yonkers Code.

### **Site Plan and Floor Plan Requirements**

- Include a legend or key for the site and floor plan with equipment symbols.
- The site plan shall include:
  - The location of the structure and the location where the system is to be installed.
  - Show conduit/cable routing of battery energy storage system outside the structures, if applicable.
  - Include underground trench detail, if applicable.
  - Show overhead runs, if applicable.
  - Show method and location of required ventilation equipment (if required) for indoor installations.
- Identify the total number of batteries.
- The floor plan shall include:
  - Location of new equipment for the battery energy storage system. (R327.4)
  - Unit spacing. 3 feet min. (R327.3.1)
  - Distances to all windows and doors for outdoor installations. (R327.4.3)
  - Smoke and Heat detectors (R327.7)
  - Fire resistance ratings. Min. 5/8" Type X of equiv. on all walls & ceiling (R327.8)
  - Vehicle impact protection if applicable. (R327.9)
  - Ventilation for indoor installations where hydrogen or other flammable gasses may be produced. (R327.10)
  - Existing equipment for interconnection.
  - Show whether the equipment is to be installed indoors or outdoors.
  - Show means of access to battery energy storage system.
  - Denote whether conductors are routed indoors or outdoors.
- Provide an elevation drawing of the system equipment and specify elevation in relation to flood plains.
  - If the building is in a flood zone, it shall be above base flood elevation.
- Provide supporting documents from manufacturer if equipment is subject to physical damage.

### **Electrical**

- Installations shall conform with the Battery Energy Storage System Inspection Checklist. The Battery Energy Storage System Inspection Checklist provides an overview of common points of inspection for which the applicant should be prepared to show compliance.
- Electrical plans to be submitted:
  - Minimum drawing size of 11" x 17" paper with minimum 10 font.
  - 3-line diagram of system wiring and equipment interconnection.

- Show grounding and bonding for the battery energy storage system, including the ground return path.
- Show method of interconnection.
- Show overcurrent protection method and rating when required.
- Include detailed wiring information for all new circuits, including:
  - > Conductor size/type
  - > Number of conductors
  - > Conduit size
  - > Conduit type
- Show all disconnection means.
- Show ratings (voltage, ampacity, environmental, etc.) for new and existing service equipment.
- Specifications and installation instructions
  - Provide specification sheets and installation instructions for the following equipment:
    - > Batteries
    - > Inverter
    - > Transformer or autotransformer
    - > Transfer switch(es)
    - > ESS support or racking
    - > Converters
    - > Interconnecting cables and connectors
    - > Management system, including charge controller(s)
    - > Panelboards
    - > HVAC/thermal management system
    - > Fire rated material
  - An approved energy storage management system shall be provided for battery technologies other than lead-acid and nickel cadmium for monitoring and balancing cell voltages, currents, and temperatures within the manufacturer's specifications. The system shall transmit an alarm signal to an approved location if potentially hazardous temperatures or other conditions such as short circuits, over voltage or under voltage are detected.

### **Fire Requirements**

- All battery energy storage systems must be designed and installed in accordance with all applicable provisions of the New York State Uniform Code. Provide documentation on how this system will meet these requirements.
  - Most one-to-two family residential systems will be subject to Section R327 (Energy Storage Systems) of the International Residential Code, as amended by the New York State Uniform Code. All other systems are subject to Section 608 (Energy Storage Systems) of the International Fire Code, as amended by the New York State Uniform Code.

## **FEES**

The total fee due for this application, is the sum of the following three fees:

1. Permit Flat Fee: \$125.00
2. Estimated cost of work fee: Calculated at \$15.00 per One Thousand dollars or any part thereof of the Installation Cost entered above.
3. Certificate of Completion Fee: \$150.00